

ABSTRACT

The invention disclosed herein relates to an improved process for making elastomeric polyisoprene articles. In particular, the process of the invention is a system which produces synthetic polyisoprene articles exhibiting tensile strength properties similar to that of solvent-based processes using natural rubber latex. The process comprises an accelerator composition at the pre-cure stage comprising a dithiocarbamate, a thiazole and a guanidine compound. In a preferred embodiment, the accelerator composition comprises zinc diethyldithiocarbamate (ZDEC), zinc 2-mercaptobenzothiazole (ZMBT) and diphenyl guanidine (DPG), in conjunction with a stabilizer, such as sodium caseinate. The invention also includes an elastomeric polyisoprene product made by the process, such as a surgeon's glove.